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July 14, 1995

VIA MESSENGER

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
Room 222  
1919 M Street, N.W.  
Washington, D.C. 20554

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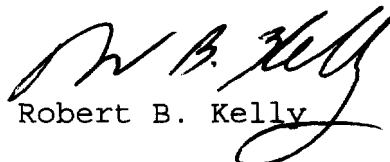
Re: Ex Parte Submission, CC Docket 94-102

Dear Mr. Caton:

On January 20, 1995, the law firm of Wiley, Rein & Fielding ("WR&F") submitted to the record in the above-referenced Docket a summary of the opening comments on the FCC's Notice of Proposed Rule Making. It has come to our attention that the WR&F summary omitted reference to the Comments submitted to this Docket on January 9, 1995 by this firm's client, KSI Inc. ("KSI"). To correct the record, I am enclosing for association with the WR&F summary in this Docket a copy of the Summary that accompanied KSI's Comments in this Docket.

Should there be any questions concerning this matter, kindly contact this office.

Sincerely,

  
Robert B. Kelly

cc: Jeffrey S. Linder, Esq.

RBK/yah

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Before the  
Federal Communications Commission  
Washington, D.C. 20554

**COPY**

In the Matter of

Revision of the Commission's rules  
to ensure compatibility with  
enhanced 911 emergency calling systems

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) CC Docket No. 94-102  
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**JAN - 9 1995**

**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

**COMMENTS OF KSI INC.**

Charles J. Hinkle, Jr.

KSI Inc.  
7630 Little River Trnpike  
Suite 212  
Annandale, Virginia 22003  
(703) 941-5749

January 9, 1995

## **SUMMARY**

KSI Inc. ("KSI"), and its key personnel, since the early 70s, have been recognized as experts and pioneers in the areas of design, development and integration of systems with capabilities for the detection, localization, and tracking of RF, acoustic, and seismic signal sources. With the implementation of cellular services in the 1980s, KSI recognized the public safety utility of employing its direction finding techniques in emergency situations involving cellular communications.

KSI has developed the patented Direction Finding Localization System or "DFLS," which enables the provision of ALI and ANI in a cell-based communications system using angle of arrival (direction finding) techniques to determine the location from which the RF transmissions of a wireless communication originate. DFLS receivers may be located throughout a wireless communications system's service area at strategic sites (for example, cell base station locations) and can identify wireless communications dialed to 911 or other emergency numbers. By employing sophisticated processing of data received concerning the angle of arrival of the RF energy of the 911 communication at multiple sites, the DFLS receiver provides ALI with a level of accuracy sufficient to meet today the proposed five year accuracy standard of the NPRM (as measured by example data collected by KSI from a prototype DFLS system sited at its Annandale, Virginia headquarters).

As set forth below, KSI enthusiastically supports

adoption of the NPRM with the modifications suggested herein. Location technologies capable of meeting and exceeding the requirements for delivering ALI specified in the NPRM exist today. Location finding technologies have been embodied in defense applications for many years. The conversion of these location technologies to public and private sector uses, particularly E-911, will serve many long-established public policy goals of this Commission, of Congress, and of the Administration.

Many members of the public safety community, including NENA and APCO, have already persuasively spoken to the benefits that will be realized by the public safety community from implementation of wireless E-911, including, among them, quicker emergency response and more efficient use of scarce public safety resources. Integration of E-911 capability into wireless CMRS systems will facilitate the deployment of the national Intelligent Transportation System which was established as a national priority by Congress in the Intermodal Surface Transportation Efficiency Act of 1991. ITS deployment, in turn, will enable the CMRS carriers to reap the benefits of commercial revenues from the provision of many new, emerging services. In addition, wireless ALI capability will assist the CMRS carriers in toll fraud detection and location and will enable the carriers to significantly reduce revenues now lost to fraudulent use of their systems.

KSI concurs that all CMRS providers that offer real-time

voice service should be subject to the E-911 requirement.

However, KSI further encourages the FCC to extend the requirement to all CMRS systems employing mobile transmitting units regardless of whether they offer voice or data services. KSI believes, moreover, that it is critical for the attainment of effective wireless E-911 service and the fulfillment of the core objective of this proceeding (the establishment of functional equivalence between wireline and wireless E-911 services) that existing subscriber units be provided E-911 capability. There are twenty million of those units today; by the third phase of the E-911 deployment there undoubtedly will be many millions more. Any E-911 deployment that overlooks these subscribers simply will not be effective.

KSI is fully supportive of FCC rules (e.g., required accuracy) that specify performance or functional requirements and agrees that the FCC need not decide what technology is to be used or how any particular technology is to be implemented.

Finally, KSI supports the NPRM's proposal for a three stage, five year phase-in of the E-911 requirement, but suggests certain modifications to the NPRM's plan. These modifications would require the provision of ALI with 150 meter accuracy in the second phase (year 3) and the provision of ALI with 100 meter accuracy in the third phase (year 5).